Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A temperature control system for use in a fiber extrusion process comprising:

a plurality of metering pump assemblies including inlets to receive a plurality of molten polymer streams from [[a]] at least one polymer supply source that is connectable to the system; and

disposed downstream from the metering pump assemblies and aligned to receive molten polymer flowing from outlets of the metering pump assemblies and to deliver the molten polymer to a spinneret;

wherein the flow paths are arranged in flow path sets and each flow path set includes at least one flow path and is spaced a selected distance from the other flow path sets so as to facilitate independent control of the temperature of a molten polymer flowing through each flow path set.

2. (Currently Amended) The system of claim 1, wherein each flow path set includes a plurality of flow paths, and each metering pump assembly includes an inlet to receive a molten polymer stream from the at least one polymer supply source and a plurality of outlets to direct molten polymer to the flow paths for a respective flow path set.

3. (Previously Presented) The system of claim 1, further comprising:

insulation material disposed between the flow path sets to selectively control heat transfer between molten polymers flowing through different flow path sets.

4. (Original) The system of claim 1, wherein at least one flow path set includes a thermal treatment unit to independently maintain molten polymer flowing through the at least one flow path set within a selected temperature range.

5. (Original) The system of claim 1, wherein at least one flow path set includes at least one sensor to measure at least one of the temperature and the pressure of molten polymer flowing through the flow path set.

6. (Previously Presented) The system of claim 1, wherein the flow paths comprise conduits disposed within a chamber.

7. (Previously Presented) The system of claim 6, wherein the chamber includes insulation material surrounding the conduits.

8. (Original) The system of claim 7, wherein the insulation material comprises glass beads.

9. (Previously Presented) The system of claim 6, wherein the chamber is partitioned into a plurality of sub-chambers, and the flow path sets are disposed in separate sub-chambers.

10. (Original) The system of claim 9, wherein each sub-chamber includes a heat treatment unit to independently maintain molten polymer flowing through each sub-chamber within a selected temperature range.

11. (Original) The system of claim 10, wherein the heat treatment unit for at least one sub-chamber comprises an inlet and an outlet to the sub-chamber, and the inlet is securable to a thermal supply source to facilitate delivery of a temperature-controlled thermal fluid into and out of the sub-chamber.

12. (Previously Presented) The system of claim 6, wherein the chamber is defined between a top plate disposed adjacent the metering pump assemblies, and a bottom plate opposing the top plate, and the top plate further includes a grooved sections disposed at selected locations between metering pump assemblies.

13. (Previously Presented) The system of claim 1, wherein the flow paths comprise channels extending through portions of a pump block.

14. (Original) The system of claim 13, wherein the pump block is partitioned into a plurality of sub-sections via at least one insulation material, and the flow path sets are disposed in separate sub-chambers.

15. (Previously Presented) The system of claim 1, further comprising:

a spin pack including the spinneret, wherein the spin pack is aligned to receive molten polymer from the flow paths; and

a spin beam disposed adjacent the spin pack, the spin beam including a thermal treatment unit to heat the spin beam and at least first portions of the spin pack to a selected temperature range.

16. (Previously Presented) The system of claim 15, further comprising an insulation material disposed between flow path sets to partition flow path sets into a plurality of sub-sections, wherein each sub-section includes at least one flow path set.

17. (Previously Presented) The system of claim 16, wherein the spin pack is partitioned into sub-sections via the insulation material.

18. (Original) A spunbond fiber extrusion system including the temperature control system of claim 15.

19. (Original) The system of claim 1, wherein each metering pump assembly includes a pump chamber and a pump disposed within the pump chamber.

20. (Original) The system of claim 19, wherein at least one pump includes a heating element to independently maintain the pump within a selected temperature range.

21. (Original) The system of claim 19, wherein at least one pump chamber includes a supply conduit securable to a thermal fluid supply source to direct thermal fluid toward the pump within the pump chamber in order to independently maintain the pump within a selected temperature range.

22 - 41. (Canceled)

42. (Currently Amended) A temperature control system for use in a fiber extrusion process comprising:

a spin pack including a spinneret to extrude fibers from molten polymer;

a spin beam oriented adjacent the spin pack and including a means to heat the spin beam and at least a portion of the spin pack to a selected temperature range;

a means for independently pumping a plurality of molten polymer streams from [[a]] at least one polymer supply source to a spinneret; and

a means for independently controlling the temperature of each molten polymer stream within a selected temperature range prior to delivery to the spinneret.

43. (Original) The temperature control system of claim 42, wherein the means for independently controlling the temperature of each molten polymer stream further controls heat

transfer between molten polymer streams and the spin beam such that the temperature of each molten polymer stream within the system increases by no more than about 50% of the difference between the spin beam temperature and an inlet temperature of the molten polymer stream.